

# EXHIBIT 4

CONFIDENTIAL

**UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF FLORIDA**

**DAVID WILLIAMS and CAROLL  
ANGLADE, THOMAS MATTHEWS,  
MARTIZA ANGELES, and HOWARD  
CLARK, *individually and on behalf of all  
others similarly situated,***

**Plaintiffs,**

**v.**

**RECKITT BENCKISER LLC and RB  
HEALTH (US) LLC,  
Defendants.**

**Case No. 1:20-cv-23564-COOKE-  
GOODMAN**

**DEFENDANTS' EXPERT DECLARATION OF PROFESSOR PUNAM KELLER  
AUGUST 15, 2021**

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## I. INTRODUCTION

### A. Assignment

1. I have been retained by Perkins Coie, counsel for Reckitt Benckiser LLC and RB Health (US) LLC (collectively, “Defendants”), in the matter of *DAVID WILLIAMS and CAROLL ANGLADE, THOMAS MATTHEWS, MARTIZA ANGELES, and HOWARD CLARK, individually and on behalf of all others similarly situated* (collectively, “Plaintiffs”) v. *Reckitt Benckiser LLC and RB Health (US) LLC*, pending in the U.S. District Court, Southern District of Florida.
2. In response to the request by the Court on August 5, 2021 for further information regarding “any studies (e.g., market research reports, customer confusion surveys, research by professional pollsters) and/or authority (including legal authority) discussing whether consumers (or potential consumers) appreciate any substantive difference between a health-related product which is said to be clinically or scientifically ‘proven’ and a health-related product which is represented to be clinically or scientifically ‘tested,’”<sup>1</sup> I have been asked by counsel for Defendants to provide information to the Court discussing relevant academic research, guidance for scientific communications from reputable sources, and to provide information on whether research supports the conclusion that consumers appreciate a substantive difference between a *brain health-related product* which is said to be clinically “proven” and a brain health-related product which is represented to be clinically “tested,” (“the at-issue claims”). My analysis is contained in this report.

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<sup>1</sup> Paperless Order re [58] Order [Dkt No. 84], August 5, 2021.

## **B. Qualifications**

3. I am the Charles Henry Jones Third Century Professor of Management, a chaired professor in the marketing area, and Senior Associate Dean for Advancement and Tuck-Dartmouth Programs at the Tuck School of Business at Dartmouth College in Hanover, New Hampshire. I hold a B.A. in Economics & Statistics from Bombay University, an MBA in Marketing from the Bajaj Institute of Management at Bombay University, and a Ph.D. in Marketing from Northwestern University.
  
4. Over the course of my career, I have taught courses at the MBA, Masters in Health Care Delivery Science (MHCDS), Executive MBA, and Ph.D. level in subjects including Marketing Management, Marketing Strategy, Marketing Research, Social Marketing, Strategic Health Marketing, and Consumer Behavior. My research develops theory on how people process marketing communications, in particular health appeals, and includes the application of social marketing principles and behavioral theory to enhance voluntary consumer and employee health and saving behaviors. In addition, my research evaluates social marketing techniques and their impact on individual and collective well-being. I have published my research in several top peer-reviewed marketing journals (including the *Journal of Marketing Research*, *Journal of Consumer Research*, and *Journal of Consumer Psychology*) on topics related to marketing in the context of health, in particular on the determinants of health message efficacy and consumer persuasion. I became a Fellow of the Association for Consumer Research in 2018; this award recognizes lifetime significant impact on scholarly work in consumer behavior. I have also served as an area editor or editorial board member for 7 different academic journals, including current positions on the

Editorial Review Board of the *Journal of Marketing*, *Journal of Public Policy and Marketing*, and *Social Marketing Quarterly*.

5. I have also advised several organizations in the health sector regarding health-related communications. I worked with the Centers for Disease Control and Prevention's Division of Cancer Prevention and Control to design an online health communication marketing tool (MessageWorks) to help health researchers and practitioners develop effective health messages. In addition, I have created health messages to increase prescription drug adherence for CVS Health. Similarly, I have created health messages for the Mayo Clinic to help reduce heart failure readmission rates. I have also provided health messaging expertise to several medical teams supported by funding from the National Institute on Aging and the National Institute for Health.
6. A copy of my curriculum vitae summarizing my background and qualifications is attached as **Appendix A** to this report.
7. I am being compensated at my standard rate of \$1,000 per hour. In addition, employees of Analysis Group, working under my direction and supervision, have assisted me in this assignment at standard hourly rates charged by that firm. Neither my compensation nor that of Analysis Group is contingent on the nature of my findings or the outcome of this litigation.

### **C. Report Preparation**

8. In preparing this declaration, I have reviewed legal filings; declarations from Dr. Gary W. Small, M.D.; declarations from the Class Administrator, Angeion; research conducted or assembled by marketing professionals, including Hauser & Associates; a declaration from Hauser & Associates executive Michael Becker; a declaration from Reckitt Health marketing executive Rachel Sexton; and other demographic and marketing data as provided by

Defendants; academic research, and other publicly available information. My opinions and conclusions are based on my understanding of the issues involved in this matter derived from documents and other materials that I have reviewed, together with my training, education, and experience. My work in this matter is ongoing, and I reserve the right to supplement my opinions and conclusions in the event that documents, testimony, expert reports, or other materials become available. A list of documents and data sources I considered in this matter is given in **Appendix B** to this report and/or in the text of this report.

## II. SUMMARY OF OPINIONS

9. The opinions I have reached regarding consumers' understanding of clinically "proven" versus clinically "tested" in this matter, as of the date this report was submitted, are summarized as follows:

- Claim interpretation will depend on reasonable consumers' understanding of the definition of words used to support any health claim, which will be determined largely by three key factors: 1) the words and phrases used in the *Message* (e.g., clinically tested vs. clinically proven), 2) the *Individual Consumer* (e.g., age; income; education), and 3) *Context* (e.g., prevention vs. promotion health products). The interaction of these three factors will drive the extent to which the at-issue claims are discernably different for the proposed class members. For example, older consumers tend to be more knowledgeable about particular marketing claims related to brain health and tend to have different expectations or needs regarding health efficacy, thus focusing on relative outcomes and information on testing of health supplements differently than younger consumers would. The same holds true for wealthier and more educated consumers.

- To evaluate the extent to which Neuriva consumers would appreciate the difference in language, it is important to consider that academic research emphasizes the importance of these three factors on measures of consumer perception and preference and, thus, the importance of evaluating the data and information most directly relevant to the at-issue language in the relevant context. Given the specific claims at issue in this matter (“clinically proven” vs. “clinically tested”), the types of individuals who comprise Neuriva consumers, and the context of the health claims, academic research would predict that Neuriva consumers would appreciate the proposed change in the Neuriva claims. Specifically, the key factors influencing consumer perception of the proposed changes in this context support this finding: 1) there is a recognized difference in the meaning of the terms “test” and “prove;” 2) health supplement consumers, specifically Neuriva consumers, tend to be older, wealthier, and more educated, characteristics which have been found to increase consumer involvement in and comprehension related to decision making and advertising, and 3) the type of brain health claim at issue is about performance and retention, rather than repair.
- Importantly, research conducted by Hauser & Associates is consistent with academic research. Specifically, this research finds that compared to “clinically proven” fewer brain health supplement consumers believed the claim “clinically tested” was extremely important to assess product efficacy. This finding emphasizes that consumers interested in brain health supplement claims would appreciate a substantive difference between these two phrases.

### III. BACKGROUND

#### A. Plaintiffs' Claims and Defendants' Substantiation Defense

10. Based on my review of the legal filings, I understand that Plaintiffs filed a series of lawsuits between June and September 2020 based on allegations that the labeling of Neuriva Original, Neuriva Plus, and Neuriva De-Stress (collectively, "Neuriva") was false or misleading because the products purportedly are not "clinically proven" and do not live up to claimed health benefits.<sup>2</sup> Defendants fully contest these allegations because the challenged statements—regarding the ingredients being "clinically proven" and supportive of five brain health indicators—are true and substantiated.<sup>3</sup> Defendants also brought motions to dismiss the complaints based on pleading failures and Plaintiffs' failure to cite any research supporting their allegations.<sup>4</sup> The Defendants also rely upon multiple clinical studies and declarations from Dr. Gary W. Small, M.D. substantiating the claims for the ingredients, which declarations I have also reviewed.<sup>5</sup>

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<sup>2</sup> Plaintiffs' Unopposed Motion for Preliminary Approval, Exhibit 1, Settlement Agreement and Release, *DAVID WILLIAMS and CAROLL ANGLADE, THOMAS MATTHEWS, MARTIZA ANGELES, and HOWARD CLARK, individually and on behalf of all others similarly situated v. Reckitt Benckiser LLC and RB Health (US) LLC*, Case No. 1:20-cv-23564, February 8, 2021 ("Settlement Agreement"), pp. 4–5.

<sup>3</sup> Defendants Reckitt Benckiser LLC and RB Health (US) LLC's Motion to Dismiss the Complaint, *DAVID WILLIAMS and CAROLL ANGLADE, individually and on behalf of all others similarly situated v. Reckitt Benckiser LLC and RB Health (US) LLC*, Case No. 1:20-cv-23564, November 2, 2020 ("Defs.' Motion to Dismiss Plaintiffs' Complaint"), p. 1; Defendants Reckitt Benckiser LLC and RB Health (US) LLC's Motion to Dismiss Plaintiffs' Amended Class Action Complaint, *DAVID WILLIAMS and CAROLL ANGLADE, individually and on behalf of all others similarly situated v. Reckitt Benckiser LLC and RB Health (US) LLC*, Case No. 1:20-cv-23564, December 15, 2020, ("Defs.' Motion to Dismiss Plaintiffs' Amended Complaint") p. 1.

<sup>4</sup> Defs.' Motion to Dismiss Plaintiffs' Complaint, pp. 1-2; Defs.' Motion to Dismiss Plaintiffs' Amended Complaint, pp. 1-2.

<sup>5</sup> Defendants' Supplemental Briefing Regarding Injunctive Relief, Exhibit 1, Declaration of Dr. Gary W. Small, Case No. 1:20-cv-23564, May 24, 2021 ("Declaration of Dr. Gary W. Small"); Defendants' Motion to Strike Submissions of Frank and TINA, Exhibit A, Supplemental Declaration of Dr. Gary W. Small, Case No. 1:20-cv-23564, August 10, 2021 ("Supplemental Declaration of Dr. Gary W. Small").

## B. The Settlement

11. The Parties settled in January 2021 to avoid the expense and risk associated with ongoing litigation.<sup>6</sup> The Settlement Agreement that I reviewed provides for Defendants to change the labeling of Neuriva from “clinically proven” to “clinically tested” and that Defendants may not revise or modify this labeling change without, first, having competent and reliable scientific evidence to support the new claim and, second, providing such evidence to Plaintiffs’ Counsel for review.<sup>7</sup>

## C. Class Notice and Objections

12. According to declarations from the Class Administrator, Angeion, which I have reviewed, a class size of approximately 13 million consumers received notice of the Settlement, including the label change from “clinically proven” to “clinically tested,” via a media, social media, and paid-search campaign at a more than 80% reach rate.<sup>8</sup> The social media campaign includes targeting consumers via “Facebook and Instagram, which are amongst the leading social media platforms in North America.”<sup>9</sup> Copies of select online media postings from this campaign are attached in **Appendix C**. The “FAQs” segment of the settlement website explicitly states the nature of the injunctive relief and directs consumers to the at-issue

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<sup>6</sup> Settlement Agreement, p. 1.

<sup>7</sup> See, Settlement Agreement, Section IV.A.

<sup>8</sup> See Plaintiffs’ Unopposed Motion for Preliminary Approval, Exhibit 3, Declaration of Steven Weisbrot of Angeion Group Regarding the Proposed Notice Program, *DAVID WILLIAMS, CAROLL ANGLADE, THOMAS MATTHEWS, MARTIZA ANGELES, and HOWARD CLARK, individually and on behalf of all others similarly situated v. Reckitt Benckiser LLC and RB Health (US) LLC*, Case No. 1:20-cv-23564, February 5, 2021 (“Weisbrot Declaration”), ¶¶ 11-13, 17-18; Defendants’ Motion to Strike Submissions of Frank and TINA, Exhibit B, Supplemental Declaration of Steven Weisbrot, Esq. of Angeion Group Regarding the Supplemental Notice Program, *DAVID WILLIAMS, CAROLL ANGLADE, THOMAS MATTHEWS, MARTIZA ANGELES, and HOWARD CLARK, individually and on behalf of all others similarly situated v. Reckitt Benckiser LLC and RB Health (US) LLC*, Case No. 1:20-cv-23564, August 9, 2021 (“Weisbrot Supplemental Declaration”), ¶¶ 6-13.

<sup>9</sup> Weisbrot Declaration, ¶¶ 28-30.

language. Excerpts from the settlement website discussing the injunctive relief are shown below:

- “Any references to ‘Clinically Proven’ on the Neuriva Product labels shall be changed to ‘Clinically Tested’ or similar language, such as clinical studies have ‘shown;’”
- “Any references to ‘Clinically Proven’ in ancillary marketing (including websites, advertising, and social media) shall be changed to ‘Clinically Tested’ or similar language, such as clinical studies have ‘shown;’” and
- “Any references to ‘Science Proved’ on the Product labels or in ancillary marketing (including websites, advertising, and social media) shall be changed to ‘Science Tested’ or similar language, such as scientific studies have ‘shown.’”<sup>10</sup>

13. As to Theodore Frank and Truth in Advertising (TINA), I have reviewed their objection briefs.<sup>11</sup> I understand they take issue with several aspects of the Settlement, including the proposed injunctive relief.<sup>12</sup> In essence, they assert that the label change from “clinically proven” to “clinically tested” is not material.<sup>13</sup> In light of these objections, I also have reviewed the Court’s order that the Parties provide additional authority as to whether the change will be a meaningful change to Neuriva consumers.<sup>14</sup>

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<sup>10</sup> “Frequently Asked Questions,” *rbsettlement.com*, available at <https://rbsettlement.com/frequently-asked-questions.php>, accessed August 12<sup>th</sup>, 2021.

<sup>11</sup> Objection of Theodore H. Frank, *DAVID WILLIAMS and CAROLL ANGLADE, THOMAS MATTHEWS, MARTIZA ANGELES, and HOWARD CLARK, individually and on behalf of all others similarly situated v. Reckitt Benckiser LLC and RB Health (US) LLC*, Case No. 1:20-cv-23564, July 26, 2021, (“Frank Brief”); Brief of Amicus Curiae by Truth in Advertising, *DAVID WILLIAMS and CAROLL ANGLADE, THOMAS MATTHEWS, MARTIZA ANGELES, and HOWARD CLARK, individually and on behalf of all others similarly situated v. Reckitt Benckiser LLC and RB Health (US) LLC*, Case No. 1:20-cv-23564, July 26, 2021, (“TINA Brief”).

<sup>12</sup> See Frank Brief, Section III; TINA Brief, Section I.

<sup>13</sup> See Frank Brief, pp. 19-22; TINA Brief, pp. 3-11.

<sup>14</sup> Paperless Order re [58] Order, Dkt No. 84 (Aug. 5, 2021).

**D. Neuriva**

14. After reviewing materials from Defendants regarding Neuriva and its associated consumer demographics, including a declaration by RB Health marketing executive Rachel Sexton, I understand that Neuriva is a dietary supplement composed of clinically tested, naturally sourced ingredients: 100mg Neurofactor (whole fruit coffee cherry), 100mg Sharp PS (phosphatidylserine), and 100mg Melon Concentrate (superoxide dismutase). Neuriva is intended to be taken once a day. Neuriva is marketed to support overall cognitive function and specifically indicators of brain performance—focus, concentration, accuracy, memory, and learning. I understand that there is well-published substantiation supporting the claims made.<sup>15</sup>
15. Neuriva is sold in retail stores and online. Current representative packaging is shown in **Figure 1** below.<sup>16</sup>

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<sup>15</sup> Defs.’ Motion to Dismiss Plaintiffs’ Complaint, p. 1-2; Defs.’ Motion to Dismiss Plaintiffs’ Amended Complaint, p. 1-2.

<sup>16</sup> “NEURIVA Original Capsules (30ct) Phosphatidylserine, Gluten Free, Decaffeinated - Supports Focus, Memory, Learning, Accuracy & Concentration (Pack of 1),” Amazon, available at <https://www.amazon.com/Brain-Support-Supplement-Performance-Concentration/dp/B07P6JL7TW>, accessed on August 13, 2021; “Neuriva Nootropic Brain Support Supplement - Plus Capsules (30 count in a box) Phosphatidylserine, B6, B12 and Folic Acid, Supports Focus Memory Concentration Learning Accuracy and Reasoning,” Amazon, available at <https://www.amazon.com/Brain-Support-Supplement-Performance-Concentration/dp/B07PBZRDJN>, accessed on August 13, 2021; “Nootropic Brain Support Supplement - NEURIVA De-Stress Capsules (30 Count in a Bottle), for Everyday Stress Reduction, Relaxation, Focus, Accuracy & Concentration\*, L-Theanine, SOD, Coffee Cherry,” Amazon, available at <https://www.amazon.com/Nootropic-Brain-Support-Supplement-Stress/dp/B086CDPCNQ>, accessed on August 13, 2021.

Figure 1  
Neuriva Package as of August 2021



16. As can be seen, the current packaging bears the claim “Clinically Proven Naturally Sourced Ingredients.” As part of a Settlement, the packaging would be changed to “Clinically Tested Naturally Sourced Ingredients.”<sup>17</sup> As described below, consumers of Neuriva will perceive a substantive difference between the term “Proven” and “Tested,” with “Proven” being a stronger indicator of the product’s efficacy.

#### E. Neuriva Consumers

17. Compared to the average shopper in the supplement category, Neuriva consumers tend to be older and more affluent.<sup>18</sup> For instance, 77% of consumers are above the age of 45 and almost 72% are classified as having at least a “Middle Income” of at least \$40,000, with more than

<sup>17</sup> Settlement Agreement, pp. 9-10.

<sup>18</sup> Research conducted or assembled by the marketing professionals in connection with the marketing of the product.

half the group declaring income over \$80,000.<sup>19</sup> A breakdown of the age of Neuriva consumers is presented in **Table 1** below.

**Table 1**  
**Breakdown of Age of Neuriva Consumers<sup>20</sup>**

Age	Percentage of Sales
18-20	-
21-24	0.4%
25-34	11.6%
35-44	11.1%
45-54	19.5%
55-64	29.9%
65+	27.6%

18. A breakdown of the income of Neuriva consumers is presented in **Table 2** below.

**Table 2**  
**Breakdown of Income of Neuriva Consumers<sup>21</sup>**

Income Category	Percentage
Low Income (Under \$40k)	28.2%
Middle Income (\$40k-\$80k)	31.5%
High Income (Over \$80k)	40.3%

19. Further in the vitamin and supplement category, Neuriva is relatively expensive.<sup>22</sup> Thus, not surprisingly, Neuriva consumers are relatively older and more affluent, which is also consistent with the data on purchasers of cognitive health products.

<sup>19</sup> Research conducted or assembled by the marketing professionals in connection with the marketing of the product.

<sup>20</sup> Research conducted or assembled by the marketing professionals in connection with the marketing of the product.

<sup>21</sup> Research conducted or assembled by the marketing professionals in connection with the marketing of the product.

<sup>22</sup> For example, Neuriva costs \$74.93 for 75 pills (\$1 per pill) on Amazon. In contrast, per Amazon search best sellers, the top-selling Vitamin C supplement costs \$11 for 250 pills (\$0.05 per pill); the top selling fish oil

20. Compared to the average shopper in the cognitive health supplement category, Neuriva consumers over-index in the four-year college category.<sup>23</sup> A little more than 69% of Neuriva consumers have at least “Some College or University” education, almost 15% of which have “Some Graduate” or a “Graduate Degree.”<sup>24</sup> A breakdown of the education level of Neuriva consumers is presented in **Table 3** below.

**Table 3**  
**Breakdown of Education Level of Neuriva Consumers<sup>25</sup>**

Education Level	Percentage
Less than high school	0.9%
High School/GED	19.9%
Some College or University	22.1%
2-year College Degree	7.1%
4-year College Degree	25.3%
Some Graduate School	3.3%
Graduate Degree	11.4%
Trade/Technical Degree	10.0%

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supplement costs \$9.99 for 200 pills (\$0.05 per pill); the top selling Vitamin B-12 supplement costs \$8.99 for 200 pills (\$0.04 per pill); and the top selling multi-vitamin pill costs \$5.99 for 150 pills (\$0.04 per pill). *See*, “Neuriva Nootropic Brain Support Supplement - Original Capsules (75 Count in a Bottle), Phosphatidylserine, Gluten Free, Decaffeinated, Supports Focus Memory Concentration Learning and Accuracy,” *Amazon*, available at <https://www.amazon.com/Neuriva-Supplement-Original-Indicators-Performance/dp/B07Z6VFMM4>, accessed on August 13, 2021; *see also*, “Best Sellers in Vitamin C Supplements,” *Amazon*, available at [https://www.amazon.com/gp/bestsellers/hpc/3774771/ref=sr\\_bs\\_4\\_3774771\\_1](https://www.amazon.com/gp/bestsellers/hpc/3774771/ref=sr_bs_4_3774771_1), accessed on August 13, 2021; “Best Sellers in Fish Oil Nutritional Supplements,” *Amazon*, available at [https://www.amazon.com/gp/bestsellers/hpc/10728501/ref=sr\\_bs\\_3\\_10728501\\_1](https://www.amazon.com/gp/bestsellers/hpc/10728501/ref=sr_bs_3_10728501_1), accessed on August 13, 2021; “Best Sellers in Vitamin B12 Supplements,” *Amazon*, available at [https://www.amazon.com/gp/bestsellers/hpc/3774741/ref=sr\\_bs\\_4\\_3774741\\_1](https://www.amazon.com/gp/bestsellers/hpc/3774741/ref=sr_bs_4_3774741_1), accessed on August 13, 2021; “Best Sellers in Multivitamins,” *Amazon* available at [https://www.amazon.com/Best-Sellers-Health-Personal-Care-Multivitamins/zgbs/hpc/3774861/ref=zg\\_bs\\_nav\\_hpc\\_3\\_6936790011](https://www.amazon.com/Best-Sellers-Health-Personal-Care-Multivitamins/zgbs/hpc/3774861/ref=zg_bs_nav_hpc_3_6936790011), accessed on August 13, 2021.

<sup>23</sup> Research conducted or assembled by the marketing professionals in connection with the marketing of the product.

<sup>24</sup> Research conducted or assembled by the marketing professionals in connection with the marketing of the product.

<sup>25</sup> Research conducted or assembled by the marketing professionals in connection with the marketing of the product.

**IV. ACADEMIC RESEARCH HIGHLIGHTS THE IMPORTANCE OF MESSAGE, CONTEXT, AND THE INDIVIDUAL CONSUMER TO LANGUAGE PERCEPTION IN SCIENTIFIC COMMUNICATIONS**

21. Consumers' information processing and belief formation are complicated processes that depend on many message, individual, and contextual factors. Substantial academic research allows us to draw conclusions about consumer's likely perceptions of health-related messaging based on their demographic characteristics and the types of claims. Also, surveys and experiments evaluating the effect of different aspects of marketing communications on consumer beliefs and preferences can help us to understand the likely response of Neuriva customers to the claim changes per the Settlement. Such research, data, along with knowledge of the recipient of the communications, the context, and message factors (described below) allow one to scientifically determine what beliefs consumers form based on marketing communications, what the consumers' takeaways are, or whether and to what extent they interpret the same claims differently in different contexts.<sup>26</sup>
22. My own research on tailored health messaging, which has been extensively published and relied upon by the CDC and others, is based on the marketing principle that health communications need to be customized for different target segments. My research demonstrates that health message effectiveness is based on the interaction between individual differences (e.g., gender, race, emotions, perceived vulnerability, and stage in the decision process), the context (e.g., detection vs. prevention or health domain), and message content (e.g., gain vs. loss frame).<sup>27</sup> In addition, my research sheds light on how individual and

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<sup>26</sup> See, Kotler, Philip and Kevin Keller, *Marketing Management, 15<sup>th</sup> ed.*, Pearson, 2016, pp. 599-600.

<sup>27</sup> Gain and loss frames are well studied. Consumers place a greater value on items they currently own beyond what they would be willing to pay for comparable items in order to own them. "The endowment effect and loss aversion have been among the most robust findings of the psychology of decision making. People commonly value losses much more than commensurate gain." Knetsch, Jack L., Fang-Fang Tang, and Richard H. Thaler, "The Endowment Effect and Repeated Market Trials: Is the Vickrey Auction Demand Revealing?"

contextual differences determine the effectiveness of several message factors, such as the use of pictures/text, negative/positive frames, base/case information, self/other referencing, self-efficacy/response efficacy, order of health risks and gains, and level of fear arousal.<sup>28</sup> These findings inform care and science communications in a variety of health contexts which highlight the relevance of the message, the individual, and context to claim interpretation.

23. To understand the extent to which the at-issue messages will or will not be understood as appreciably different by consumers of Neuriva, one must consider the differences in the actual messaging claims, the characteristics of the consumers of these products, and the type of health product being promoted:

- “Test” applies to a process, whereas “Proof” is about an outcome or result.
- “Proven” and “Tested” are generally expected to meet different levels of scientific investigation and different levels of statistical certainty.
- Older consumers, such as those 55 years and older, are typically more familiar with pitches in health advertising. Notably, more than half of Neuriva’s sales are

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*Experimental Economics*, Vol. 4, 2001, pp. 257-269, at p. 257.

<sup>28</sup> See, Cole, Galen, E., et al., “CDC MessageWorks: Designing and Validating a Social Marketing Tool to Craft and Defend Effective Messages,” *Social Marketing Quarterly*, Vol. 22 (1), March 2015, pp. 3-18; see also, Keller, Punam Anand, et al., “Effectiveness of Corporate Well-Being Programs: A Meta-Analysis,” *Journal of Macromarketing*, 29 (3), August 2009, pp. 279-302; Keller, Punam Anand and Donald R. Lehmann, “Designing Effective Health Communications: A Meta Analysis of Experimental Results,” *Journal of Public Policy and Marketing*, 27 (2), Fall 2008, pp. 117-130; Keller, Punam Anand, “Regulatory Focus and Efficacy of Health Messages,” *Journal of Consumer Research*, Vol. 33 (1), June 2006, pp. 109-114; Block, Lauren G. and Punam Anand Keller, “Effects of Self-Efficacy and Vividness on the Persuasiveness of Health Communications,” *Journal of Consumer Psychology*, Vol. 6 (1), 1997, pp. 31-54; Keller, Punam Anand and Lauren G. Block, “Increasing the Persuasiveness of Fear Appeals: The Effect of Arousal and Elaboration,” *Journal of Consumer Research*, Vol. 22 (4), March 1996, pp. 448-459; Block, Lauren G. and Punam Anand Keller, “When to Accentuate the Negative: The Effects of Perceived Efficacy and Message Framing on Intentions to Perform a Health-Related Behavior,” *Journal of Marketing Research*, Vol. 32 (2), May 1995, pp. 192-203; Keller, Punam Anand, “Converting the Unconverted: The Effect of Inclination and Opportunity to Discount Health-Related Fear Appeals,” *Journal of Applied Psychology*, Vol. 84 (3), June 1999, pp. 403-415; Block, Lauren G. and Punam Anand Keller, “Beyond Protection Motivation: An Integrative Theory of Health Appeals,” *Journal of Applied Social Psychology*, Vol. 28 (17), September 1998, pp. 1584-1608.

from this group of consumers.

- Higher income consumers, who are typically those buying supplements of any kind, particularly supplements at a price point such as Neuriva's (from \$30 to \$80 per package depending on package size and formulation), are typically more educated and more health literate than lower income and less educated consumers.
- Consumers place different requirements for product performance and claim interpretation based on the product category and type of claim (i.e., whether the product is promising health improvements, prevention of health decrements or recovery of health losses).

24. Given these characteristics, it is my conclusion that Neuriva consumers likely would appreciate the change in product claims. The ultimate effect of changes in product claims on consumers will depend on the interaction between message, individual differences, and context effects. The relevance of outcome comparisons across contexts or case studies requires a very focused consideration of each of the three factors. Thus, generalized statements about how consumers as a whole would perceive certain messages without taking into account these factors would not be meaningful to this Court's determination of whether the consumers in the class of Neuriva consumers would perceive the difference between "proven" and "tested."

25. In this section, I discuss how the nature of the claims in this matter and the individual characteristics make Neuriva's consumers especially attuned to the differences between "test" and "prove," given the context of brain health performance.

**A. “Testing” a Product’s Performance and “Proving” a Product’s Performance Have Recognized Distinctions**

26. Consumers are likely to recognize a distinction between “testing” and “proving” a product’s performance given the difference in the meanings of these terms. Simple dictionary definitions emphasize the distinction between testing and proving a hypothesis. According to the Collins dictionary:

- **“prove”**: to establish or demonstrate the truth or validity, especially by using an established sequence of procedures (especially by experiment) or statements.<sup>29</sup> If you *prove* that something is true or correct, you provide evidence showing that it is definitely true or correct. For example, “he was able to prove that he was an American.”
- **“test”**: When you *test* something, you try it, for example by touching it or using it for a short time, in order to find out what it is, what condition it is in, or how well it works.<sup>30</sup> When you use a practical method to try to find out how good or bad someone or something is, don’t say that you “prove” them. You say that you *test* them. For example, “I will test you on your knowledge of French” or “a number of new techniques were tested.”

27. Importantly, as these definitions highlight, the word “test” is generally used to describe a process whereas “proof” is used to describe the quality of an outcome. As such, and as the evidence supports, the process for conducting a product claim “test” is less rigorous than the process for supporting or “proving” a hypothesis. A test implies use of a professional (e.g., a

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<sup>29</sup> “Prove,” *Collins*, available at <https://www.collinsdictionary.com/us/dictionary/english/prove>, accessed on August 10, 2021.

<sup>30</sup> “Test,” *Collins*, available at <https://www.collinsdictionary.com/dictionary/english/test>, accessed on August 10, 2021.

marketing research expert) to create a process to assess impact whereas “proof” implies presence of scientific evidence on outcomes related to theoretical or empirically-driven hypotheses.

28. Academic papers and discussions of “testing” claims versus “proving” outcomes highlight the distinction. For example, when testing a marketing claim, a firm will typically engage in a testing process and the outcome will lead the firm to either put a claim on a package or in an advertisement or decide not to.<sup>31, 32</sup>
29. Both standard English definitions and requirements for scientific or marketing research highlight that there are appreciable differences between the terms, “proof” and “test.” The question then becomes whether the consumers of Neuriva are likely to appreciate those claim differences in the context of Neuriva’s brain health supplement messages.

**B. Older, Wealthier, and More Educated Consumers are Likely to Discern Differences Across Health Marketing Messages**

30. Understanding the distinction that Neuriva’s target consumers would draw from changing the packaging claims also requires an understanding of the specific consumers who are targeted with the brain health claims and who are the typical purchasers of the relevant products. Generally, consumers of such supplements tend to have higher educational attainment and higher incomes than other consumers.<sup>33</sup> Neuriva consumers are typically older, as over 57%

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<sup>31</sup> See, Kotler, Philip and Kevin Keller, *Marketing Management, 15<sup>th</sup> ed.*, Pearson, 2016, pp. 124-137.

<sup>32</sup> See, Crawford, Susan and Loretta Stucki, “Peer Review and the Changing Research Record,” *Journal of the American Society for Information Science*, Vol. 41, (3), April 1990, pp. 223-228, at p. 224.

<sup>33</sup> “Older adults (71+ years) remained the highest consumers of [dietary supplements], specifically among the highest income group (82%), while younger adults (19-30 years), predominantly in the lowest income group (28%), were the lowest consumers.” Cowan, Alexandra, et al., “Dietary Supplement Use Differs by Socioeconomic and Health-Related Characteristics among U.S. Adults, NHANES 2011-2014,” *Nutrients*, Vol. 10, (8), August 2018, pp. 1-12, at p. 1.

of Neuriva consumers are aged 55 or older.<sup>34</sup> Compared to the average consumer in the brain health category, Neuriva consumers also tend more to have a 4-year college degree or a graduate degree and make \$80,000+ annually.<sup>35</sup> Each of these factors has been found to correspond with higher interest in health issues, which have been found to correspond with higher attention to health claims in advertising.

31. When compared to younger adults, evidence suggests that older adults are more involved and interested in the specific health messages, have a better vocabulary, and are generally more skeptical or savvy consumers of advertising. Such relationships indicate that Neuriva target customers would be more likely than other consumers to perceive a difference between the proposed and prior performance claims (i.e., clinically proven versus clinically tested).
32. In general, it has been found that skepticism towards advertising increases with age due to factors such as enhanced marketplace experience.<sup>36</sup> While a couple of studies did not find that skepticism increased with age among adolescents, they did find that knowledge of advertiser tactics and knowledge of the marketplace were related to increased skepticism.<sup>37</sup> Such results emphasize the importance of experience to interpretation of advertising language, which

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<sup>34</sup> See **Table 1**.

<sup>35</sup> Research conducted or assembled by the marketing professionals in connection with the marketing of the product; see also, Weisbrot Declaration, ¶ 19.

<sup>36</sup> Obermiller, Carl and Eric R. Spangenberg, "Development of a Scale to Measure Consumer Skepticism Toward Advertising.," *Journal of Consumer Psychology*, Vol. 7, No. 2, 1998, pp. 159-186, at p. 175; Tan, Soo-Jiuan and Khai-Ling Tan, "Antecedents and Consequences of Skepticism toward Health Claims: An Empirical Investigation of Singaporean Consumers," *Journal of Marketing Communications*, Vol. 13, No. 1, 2007, pp. 59-82, at p. 74; Thakor, Mrugank V. and Karine Goneau-Lessard, "Development of a Scale to Measure Skepticism of Social Advertising Among Adolescents," *Journal of Business Research*, Vol. 62, No. 12, 2009, pp. 1342-1349, at p. 1348.

<sup>37</sup> Boush, David M., Marian Friestad, and Gregory M. Rose, "Adolescent Skepticism toward TV Advertising and Knowledge of Advertiser Tactics," *Journal of Consumer Research*, Vol. 21, No. 1, 1994, pp. 165-175, at p. 172; Moscardelli, Deborah and Catherine Liston-Hayes, "Consumer Socialization in a Wired World: The Effects of Internet Use and Parental Communication on the Development of Skepticism to Advertising," *Journal of Marketing Theory and Practice*, Vol. 13, No. 3, 2005, pp. 62-75, at p. 70.

suggests that older consumers, more engaged in health messaging would understand and appreciate changes in product claims, as in this case.

33. Some research also suggests that aging may also bring positive cognitive changes which may influence how consumers interpret specific advertising claims. “For example, many studies have shown that older adults have more extensive vocabularies and greater knowledge of the depth of meaning of words than younger adults. Older adults may also have learned from a lifetime of accumulated knowledge and experiences. Whether and how older adults apply this accumulated knowledge, and how the brain changes as a result, is an area of active exploration by researchers.”<sup>38</sup>
34. Further, age may have a particularly important effect on the interest in and interpretation of *health* messages. In fact, younger adults and older adults respond differently to technically comparable health and emotion claims depending on whether they are framed positively or negatively.<sup>39</sup> Research indicates that the older a population is, the higher their interest and consideration in positive health messages. These researchers specifically highlighted that “interest in health and emotion regulation should be considered when examining the relationship between age and goal-framing for health messages.”<sup>40</sup> Such results further

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<sup>38</sup> “How the Aging Brain Affects Thinking,” *National Institute on Aging*, October 19, 2020, available at <https://www.nia.nih.gov/health/how-aging-brain-affects-thinking>, accessed on August 10, 2021.

<sup>39</sup> “[I]n processing health messages, older adults may be more motivated by positive affect, while younger adults may be more motivated by negative affect.” *See*, Xiaomei Liu, Michael M Shuster, Joseph A Mikels, Elizabeth A L Stine-Morrow, “Doing What Makes You Happy,” June 12, 2009, available at <https://pubmed.ncbi.nlm.nih.gov/31188722/>, accessed on August 12, 2021.

<sup>40</sup> Masumoto, Kouhei, Mariko Shiozaki, and Nozomi Taishi, “The Impact of Age on Goal-Framing for Health Messages: The Mediating Effect of Interest in Health and Emotion Regulation,” *PLoS ONE*, Vol. 15, No. 9, 2020, pp. 1-16, at p. 1.

emphasize that Neuriva customers would appreciate changes to the health claims in this matter.

35. Socioeconomic factors also may determine health literacy and involvement. Marketing research suggests consumers' assessment of marketing communication depends on individual and situational factors, such as marketplace experiences, personality, and education.<sup>41</sup> Compared to individuals with low literacy and income, high income individuals, particularly those who are more well educated, are more likely to exhibit greater attention to health messages and are more likely to use supplements (as would be the case with Neuriva).
36. Furthermore, the circumstances of this labeling change and the specifics of the consumers of the relevant product make it particularly likely that Neuriva consumers would attend to and appreciate the changes to the claims. Marketing and health researchers have developed several models for describing how consumers process marketing communications. The Elaboration-Likelihood-Model ("ELM") is particularly relevant to understanding the extent to which Neuriva customers would appreciate changes in the proposed product claims under the proposed settlement.
37. As ELM research has revealed, the likelihood that a message recipient will be persuaded by differences in the key arguments in a claim or statement depends on their level of involvement in the particular decision. More involved consumers attend more closely to the specific terms in a health claim.<sup>42</sup> Less involved consumers are more likely to be persuaded by peripheral

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<sup>41</sup> Obermiller, Carl and Eric R. Spangenberg, "Development of a Scale to Measure Consumer Skepticism Toward Advertising," *Journal of Consumer Psychology*, Vol. 7, No. 2, 1998, pp. 159-186, at p. 167.

<sup>42</sup> Petty, Richard E., John T. Cacioppo, and David Schumann, "Central and Peripheral Routes to Advertising Effectiveness: The Moderating Role of Involvement," *Journal of Consumer Research*, Vol. 10, No. 2, 1983, pp. 135-146, at pp. 135, 136, and 144; Petty, Richard E. and John T. Cacioppo, "The Elaboration Likelihood Model of Persuasion," *Advances in Experimental Social Psychology*, Vol. 19, 1986, pp. 123-205, at pp. 125, 126, and 191.

cues, such as color, images, or font. Here, since Neuriva and health supplement consumers are older, more educated, and wealthier, characteristics which have been found to be tied to high consumer involvement in health-based decision making and a high level of literacy about health issues, Neuriva consumers are particularly likely to focus on the key terms in the message and more likely to appreciate the differences between the prior and proposed language.

**C. Academic Research Highlights that Consumer Responses to Product Claims Must Be Evaluated in Context**

38. In my opinion, which is supported by my research and by other experts in health communication, context effects can alter the interpretation of product claims. Depending on consumers' individual context for using supplements, different consumers may have different interpretations of product claims. For example, research indicates a prevention goal (further loss reduction or safety and security) evokes different product expectations than a promotion goal (performance related to enhanced achievement and accomplishment).<sup>43</sup> In this context, preventing brain health deficits may be linked to a consumer's preference for non-inferior product claims (or point-of-parity), whereas products such as Neuriva promoting enhanced brain health may be linked to superior (point-of-difference) product claims.<sup>44</sup> Since the Neuriva message promotes brain health enhancement, interested consumers would be more

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<sup>43</sup> See, Pham, Michel Tuan and E. Tory Higgins, "Promotion and Prevention in Consumer Decision-Making: The State of the Art and Theoretical Propositions," in *Inside Consumption*, 1st Edition, Routledge, 2005, pp. 8-43, at p. 10.

<sup>44</sup> See, "Evaluating 'superiority', 'equivalence' and 'non-inferiority' in clinical trials," *National Institute of Health*, July-August 2007, available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6074290/>, accessed on August 12, 2021; "Superiority trials, non-inferiority trials, and prisoners of the 2-sided null hypothesis," *BMJ Journals*, available at <https://ebm.bmj.com/content/9/2/38>, accessed on August 12, 2021; "Points to Consider on Switching between Superiority and Non-Inferiority," *The European Agency for the Evaluation of Medical Products*, July 27, 2000, available at [https://www.ema.europa.eu/en/documents/scientific-guideline/points-consider-switching-between-superiority-non-inferiority\\_en.pdf](https://www.ema.europa.eu/en/documents/scientific-guideline/points-consider-switching-between-superiority-non-inferiority_en.pdf), accessed on August 12, 2021.

focused on finding superior products and are likely more attuned to the difference between “test” and “prove.”

39. The likelihood that Neuriva’s actual consumers perceive a difference in the language used in its communications is enhanced in this matter because of the class certification notice that was part of the proposed settlement process. Based on the declaration of Steven Weisbrot, Esq. of Angeion Group, multi-media communications were targeted to reach at least 13 million actual and target consumers of Neuriva, i.e., those who had used vitamin and dietary supplements within the prior 6 months.<sup>45</sup> Based on Mr. Weisbrot’s experience, it was predicted these communications would reach 80% of qualified consumers with an average frequency of 3.99 times.<sup>46</sup> These social media posts and other communications did not simply rely on consumers noting a change to the product label, these communications directed these potential customers to the specific change from “tested” to “proven” for claims not only on the label but also in the other in ancillary marketing (including websites, advertising, and social media). Given that 80% of actual Neuriva’s consumers likely saw up to four communications specifically aimed at alerting these customers that the product claim had changed, such customers are particularly likely to appreciate and attend to such changes.
40. Decades of academic research emphasizes that marketing messages and consumer perceptions of and response to these messages depend on three critical factors: the words or content of the messages, the individual characteristics of the consumers, and the context for these messages. Given that (1) there are recognized technical differences between the words “test” and “prove,” (2) that the Neuriva consumers have demographic characteristics found to increase

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<sup>45</sup> Weisbrot Declaration, ¶¶ 17-18.

<sup>46</sup> Weisbrot Declaration, ¶¶ 11-13.

their involvement in the evaluation of advertising related to health, and (3) that the proposed changes to the specific brain health claims in this matter have been the focus of numerous communications to actual and potential Neuriva consumers, it is more likely than not that that consumers would appreciate the difference in the messaging claims.

**V. RESEARCH CONDUCTED BY HAUSER ASSOCIATES SUPPORTS THAT CONSUMERS OF NEURIVA WOULD APPRECIATE A DIFFERENCE IN PROPOSED MESSAGING CHANGES**

41. The Plaintiff’s briefing states that the injunctive relief provides value to the class by “(1) barring Defendants from stating that the Neuriva Products or their ingredients are clinically or scientifically proven to improve brain performance, and (2) limiting Defendants to stating with respect to the Neuriva Products’ ingredients that they have been ‘Clinically Tested,’ ‘Science Tested,’ or similar language such as scientific studies have ‘shown’ certain results.”<sup>47</sup>
42. It is my understanding that Defendants’ commissioned a market research study in 2019 to evaluate specific health claims. I have reviewed a summary presentation on this research from Hauser Associates, who researched consumer perception and intent to purchase based on 38 different health claims (e.g., “clinically tested”, “clinically proven,” and “clinically studied”) in various health contexts (e.g., aging health, brain health, and joint health), (“Hauser Study”).<sup>48</sup> This research supports the conclusion that Neuriva consumers would appreciate a difference in the phrases previously used in its advertising and those that will be used going forward. 1050 consumers of “vitamins, minerals, or supplements,” participated in a study

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<sup>47</sup> Plaintiffs’ Motion for Final Approval of Class Action Settlement and Class Counsel’s Motion for Attorneys’ Fees, Expenses, and Service Awards and Incorporated Memorandum of Law, *DAVID WILLIAMS and CAROLL ANGLADE, THOMAS MATTHEWS, MARTIZA ANGELES, and HOWARD CLARK, individually and on behalf of all others similarly situated v. Reckitt Benckiser LLC and RB Health (US) LLC*, Case No. 1:20-cv-23564, United States District Court for the Southern District of Florida, July 19, 2021, p. 5.

<sup>48</sup> “RB VMS Rapid Results 2019 Program, VMS Drivers of Efficacy, Topline Report,” *Hauser Associates, Inc.*, July 2019, (“Hauser Study”).

related to seven health topics.<sup>49</sup> Survey participants were asked about an array of terms and whether and how those terms would influence their perceptions and preferences for supplements.<sup>50</sup> The results of the Hauser Study highlight that consumer responses to health claims varies by context (or type of health supplement) and individual experience (users vs. non-users of the type of health supplement). The results of this study emphasize that users of different types of health supplements interpret the same claim differently.

43. The most relevant perception evaluation from the Hauser Study for this matter is the evaluation of how respondents reacted to different language related to testing or research versus language related to proof in the category of “Brain Health.” Specifically, the Hauser Study finds that consumers, when perceiving efficacy, had different responses to “Clinically Proven” relative to “Clinically Tested.”
44. According to the findings reported for the Hauser Study, 33% of the respondents who provided assessments for brain health products responded that a “Clinically Proven” “vitamin, mineral or supplemental product” was “extremely likely” to “work like it is supposed to.” The 33% was found to be a “significantly higher score than average general claim rating [of 28%] at the 90% confidence interval.” In contrast, 26% of such respondents responded that a “Clinically Tested” “vitamin, mineral or supplemental product” was “extremely likely” to “work like it is supposed to” – less than the 28% average claim rating for these respondents

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<sup>49</sup> Health topics included: “Heart Health, Joint Health, Immune Health, Digestive Health, Brain Health, General Health, and Longevity/Aging Health.” *See*, Hauser Study, p. 4.

<sup>50</sup> Respondents were asked 3 questions for each claim in their specified category: “If this claim was on a vitamin, mineral or supplement product, how likely do you feel it would work like it is supposed to?”, “How likely would you be to buy a vitamin, mineral or supplement product if it was described in this manner?”, and “Thinking about a vitamin, mineral or supplement product described by this claim, how natural do you think this product would be?” *See*, Hauser Study, p. 3.

across the study.<sup>51</sup> These results emphasize the importance of message and context on measures of consumer perception and preference and thus the importance of evaluating the data and information most directly relevant to the at-issue language in the relevant context.<sup>52</sup>

45. The reported findings I reviewed from the Hauser Study, which were presented to Reckitt management, demonstrate that context affects consumers' understanding of the messaging in Neuriva. The research available in this matter supports the conclusion that significantly more brain health supplement consumers perceive a "clinically proven" product as being more important to determine efficacy compared to the average number of consumers that perceive the same for all claims tested in the study, but fewer brain health supplement consumers perceive the same for a "clinically tested" product. This research emphasizes that consumers interested in brain health supplement claims would appreciate a substantive difference between these two terms.

Signed on the 15<sup>th</sup> day of August 2021,



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Punam A. Keller

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<sup>51</sup> Hauser Study, pp. 3 and 8. 29% of the respondents responded that "Clinically Studied" "vitamin, mineral or supplemental product" was "extremely likely" to "work like it is supposed to" – a score not considered significantly higher than the average general claim rating across the study. The lack of statistical difference in the efficacy scores of both "Clinically Tested" and "Clinically Studied" relative to the average claimed rating, along with the statistical difference in the score of "Clinically Proven" relative to the average claim rating, further supports that "tested" and "studied" are indicative of a process rather than an outcome.

<sup>52</sup> The extent of difference in respondents' perception of "Clinically Proven" and "Clinically Tested" in other categories does not detract from the substantive difference in responses to "Clinically Proven" and "Clinically Tested" in "Brain Health" – a category that involves a different context and different characteristics of consumers compared to other categories.

## Appendix A

7/30/2021

**PUNAM ANAND KELLER**  
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### EDUCATION

<u>Institution</u>	<u>Degree</u>	<u>Date</u>	<u>Field</u>
Elphinstone College, Bombay University, India	BA	1977	Economics & Statistics
Bajaj Institute of Management Bombay University, India	MBA	1979	Marketing
Northwestern University	Ph.D.	1984	Marketing

### ACADEMIC POSITIONS

September 1983 - August 1987	Assistant Professor, New York University
September 1987 - June 1995	Assistant/Associate Professor, Columbia University
July 1993 - June 1995	Visiting Associate Professor, Stanford University
July 1995 - April 1997	Associate Professor, University of North Carolina
May 1997 - June 1998	Visiting Associate Professor, Duke University, Adjunct Faculty, Duke Medical Center
July 1998 – May 2004	Professor, Tuck School, Dartmouth College, Adjunct Faculty, Dartmouth- Hitchcock Medical Center
June 2002 – June 2018	Member, Cancer Control Research Program, Norris Cotton Cancer Center, Lebanon, NH.

June 2002 – present	Charles Henry Jones Third Century Professor of Management
July 2015 – June 2018	Associate Dean for Innovation and Growth
July 2018 – July 2020	Deputy Dean
August 2020 – Present	Senior Associate Dean for Innovation and Growth

**TEACHING EXPERIENCE**

MBA Program: Marketing Management, Marketing Strategy, Consumer Behavior, and Social Marketing.  
Ph.D. Program: Seminar in Consumer Behavior.  
Executive Program: Marketing Management, Marketing Strategy, Social Marketing, and Services Marketing.

**RESEARCH INTERESTS**

Application of social marketing principles and behavioral theory to consumer and employee wellness programs.

**PUBLICATIONS**

Lauffenburger J.C. et al., (2021), “Preferences for mobile health technology and text messaging communication in patients with type 2 diabetes: A qualitative interview study,” J Med Internet Res, in press.

Lauffenburger J.C. et al., (2021), “Rationale and design of the Novel Uses of adaptive Designs to Guide provider Engagement in Electronic Health Records (NUDGE-EHR) pragmatic adaptive randomized trial: A Trial Protocol,” Implementation Science, in press.

Keller, P. A., K. Hesselton, and K.G. Volpp (2020), “Increasing Recruitment with Time Limited Financial Incentives,” Journal of the Association for Consumer Research, v.5, 3, 258-270.

Keller, P.A. (2018), “Gender and Risk: The Emotional Fluctuation Effect,” Journal of the Association for Consumer Research, 3 (1), 109-122.

Sharma, E. and P. A. Keller (2017), “A Dollar Saved is not a Dollar Earned: Financial Deprivation Shifts Focus from Saving to Earning,” Journal of the Association for Consumer Research, 2 (1), 64-77.

Lauren G. Block, P. A. Keller, et al. (2016), "The Squander Sequence: Understanding Food Waste at Each Stage of the Consumer Decision-Making Process," Journal of Public Policy & Marketing, Fall, Vol. 35, No. 2, pp. 292-304.

Williamson, S., L. G. Block, and P. A. Keller (2016), "Of Waste and Waists: The Effect of Plate Material on Food Consumption and Waste," Journal of the Association for Consumer Research, 1.1, 147-160.

Cole, G. E., P. A. Keller et al. (2016), "A Message Development Tool for Health Communication: An Audience-Centered Design," Social Marketing Quarterly, 22.1, 3-18.

Keller, P. A. (2015), "Social Marketing and Healthy Behaviors," in in David W. Stewart (ed.), Handbook of Persuasion and Social Marketing, Chapter 2 (9-38), New York: Routledge.

Shah, Avni M., et al. (2014), "Surcharges plus Unhealthy Labels Reduce Demand for Unhealthy Menu Items." Journal of Marketing Research 51.6 (2014): 773-789.

Batra, R., P. A. Keller, and V. J. Strecher (eds.), (2011), "Leveraging Consumer Psychology for Effective Health Communications: The Obesity Challenge," Armonk, N.Y.: M.E.Sharpe.

Keller, P. A., B. Harlam, G. Loewenstein, and K. Volpp (2011), "Enhanced Active Choice: A New Method to Motivate Behavior Change," Journal of Consumer Psychology, 21, 4, 376-383.

Scammon, D., P. A. Keller, et al. (2011), "Transforming Consumer Health," Journal of Public Policy and Marketing, 30, 1, 14-22.

Keller, P. A. and A. Lusardi (2010), "Employee Retirement Savings: What We Know and What We are Discovering for Helping People to Prepare for Life After Work" book chapter in "Transformative Consumer Research for Personal and Collective Well Being: Reviews and Frontiers" David Mick, Simone Pettigrew, Connie Pechmann, and Julie Ozanne (eds.), Taylor and Francis Group, pp. 445-464.

Jing et al. (2010), "A Review of Financial Behavior Research: Implications for Financial Education, NEFE (National Foundation for Financial Education) Series.

Lee, A. Y., P. A. Keller, and B. Sternthal (2009), "Value from Regulatory Construal Fit: The Persuasive Impact of Fit between Consumer Goals and Message Concreteness." Journal of Consumer Research, 36 (5), February, 735-748.

Keller, P. A., D. R. Lehmann, and K. Milligan (2009), "Effectiveness of Corporate Well-Being Programs: A Meta-Analysis," Journal of Macromarketing, 29(3), September, 279-302.

Keller, A. P. and D. R. Lehmann (2008), "Designing Effective Health Communications: A Meta Analysis of Experimental Results," Journal of Public Policy and Marketing, 27 (2), 117-130.

Ratner, R., et al. (2008), "How Behavioral Decision Research can Enhance Consumer Welfare: From Freedom of Choice to Paternalistic Intervention," Marketing Letters, 19 (3-4), December, 383-397.

Lusardi, A., P. A. Keller, and A. Keller (2008), "New Ways to Make People Save: A Social Marketing Approach," Chapter, Overcoming the Saving Slump: How to Increase the Effectiveness of Financial Education and Saving Programs, University of Chicago Press.

Keller, A. P. (2006), "Regulatory Focus and Efficacy of Health Messages," Journal of Consumer Research, 33 (June), 109-114.

Keller, A. P., Lipkus, I. M., and B. K. Rimer (2003), "Affect, Framing and Persuasion," Journal of Marketing Research, 40 (1), (February), 54-64.

Keller, A. P. and D. W. Rook (2003), Advances in Consumer Research, Volume XXX, Association for Consumer Research.

Keller, A. P., Lipkus, I. M., and B. K. Rimer (2002), "Depressive Realism and Health Risk Accuracy: The Negative Consequences of Positive Mood," Journal of Consumer Research, 29 (June), 57-69.

Lipkus, I. M., Biradavolu, M., Fenn, K., Keller, P. A., and B. K. Rimer (2001), "Informing Women about their Breast Cancer Risks: Truth and Consequences," Health Communication, 13 (2), 205-226.

Keller A. P. and L.G. Block (1999), "The Effect of Affect-Based Dissonance versus Cognition-Based Dissonance on Motivated Reasoning and Health-Related Persuasion," Journal of Experimental Psychology: Applied, vol. 5, 3, 1-12.

Keller, A. P. (1999), "Converting the Unconverted: The Effect of Inclination and Opportunity to Discount Health-Related Fear Appeals," Journal of Applied Psychology, vol. 84, 3, 403-415.

Block, L. G. and P. A. Keller (1998), "Beyond Protection Motivation: An Integrative Theory of Health Appeals," Journal of Applied Social Psychology, 28 (17), 1584-1608.

Keller A. P. and L. G. Block (1997), "Vividness Effects: A Resource Matching Perspective," Journal of Consumer Research, 24 (December), 295-304.

Block, L.G. and P. A. Keller (1997), "Effects of Self-Efficacy and Vividness on the Persuasiveness of Health Communications," Journal of Consumer Psychology, 6(1), 31-54.

Keller A. P. and L. G. Block (1996), "Increasing the Persuasiveness of Fear Appeals: The Effect of Arousal and Elaboration," Journal of Consumer Research, 22 (March), 448-59.

Block, L. G. and P. A. Keller (1995), "When to Accentuate the Negative: The Effects of Perceived Efficacy and Message Framing on Intentions to Perform a Health-Related Behavior," Journal of Marketing Research, 32 (May), 192-203.

Keller A. P. and A. McGill (1994), "Differences in the Relative Influence of Product Attributes Under Alternative Processing Conditions: Attribute Importance Versus Attribute Ease of Imageability," Journal of Consumer Psychology, 3(1), 29-49.

Anand, P. and B. Sternthal (1992), "The Effects of Program Involvement and Ease of Message Counterarguing on Advertising Persuasiveness," Journal of Consumer Psychology, 1 (3), 225-38.

Holbrook, M. B. and P. Anand (1992), "The Effects of Situation, Sequence, and Features on Perceptual and Affective Responses to Product Designs: The Case of Aesthetic Consumption," Empirical Studies of the Arts, 10:1, 19-31.

Anand, P. and B. Sternthal (1991), "Perceptual Fluency and Affect without Recognition," Memory and Cognition, 19 (3), 293-300.

Holbrook, M. B. and P. Anand (1990), "Effects of Tempo and Situational Arousal on the Listener's Perceptual and Affective Responses to Music," Psychology and Music, 18, 150-62.

Anand, P. and B. Sternthal (1990), "Ease of Message Processing as a Moderator of Repetition Effects in Advertising," Journal of Marketing Research, 27 (August), 345-53.

McGill, A. and P. Anand (1990), "The Effect of Imagery on Information Processing strategy in a Multiattribute Choice Task," Marketing Letters, 1, 7-16.

Anand, P. and M. B. Holbrook (1990), "Reinterpretation of Mere Exposure or Exposure of Mere Reinterpretation," Journal of Consumer Research, 17 (September), 242-44.

McGill, A. and P. Anand (1989), "The Effect of Vivid Attributes on the Evaluation of Alternatives: The Role of Differential Attention and Cognitive Elaboration," Journal of Consumer Research, 16 (September), 188-96.

Anand, P. and M. B. Holbrook (1989), "The Convergent Validity of Dichotic Listening and Hemispheric Priming as Methods for Studying Lateralized Differences in Affective Responses," Marketing Letters, 3, 199-208.

Anand, P. and B. Sternthal (1988), "Strategies for Designing Persuasive Messages: Deductions from the Resources Matching Hypothesis," in Patricia Cafferata and Alice Tybout (eds.), Cognitive and Affective Responses to Advertising, Lexington, Mass. 135-60.

Anand, P., M. B. Holbrook, and D. Stephens (1988), "The Formation of Affective Judgments: The Cognitive-Affective Model Versus the Independence Hypothesis," Journal of Consumer Research, 15 (November), 386-91.

Anand, P. (1987), "Inducing Franchisees to Relinquish Control: An Attribution Analysis," Journal of Marketing Research, 24 (May), 215-21.

Anand, P. and L. W. Stern (1985), "A Socio-Psychological Explanation for Why Marketing Channel Members Relinquish Control," Journal of Marketing Research, 22 (November), 365-77.

## **WORKING PAPERS**

Chen E., P. A. Keller et al., "Evaluation of an Intervention to Improve Patients' Self-Management of Heart Failure," Working Paper.

Keller, A. P. and Annamaria Lusardi, "Message Design to Change Behavior," Working Paper.

Lee, Pamela, C. Gaffney, A. L. Olson, and P. A. Keller, "It's the Genes. There is Not Much We Can do About That: Mothers' Perceptions of Factors that Influence Childhood Overweight," Working Paper.

Keller, Anand, P. "Using Need for Control to Change Preventative Health Behaviors," Working Paper.

Keller, A. P., and A. L. Olson, "Negative Emotions and Coping Health Appraisal," Working Paper.

Keller, A. P. and L. G. Block, "How Source of Arousal Affects Memory for Health Communications," Working Paper.

## **RESEARCH SUPPORT**

Grant (sub-award): National Institutes of Health (NIH) (# TBD)  
Admin Core for ROYBAL Center for Therapeutic Optimization using Behavioral Science  
Major Goal: To develop messages to reduce COVID vaccine hesitancy.

Grant (sub-award): National Institutes of Health (NIH) (# 122876)  
Admin Core for ROYBAL Center for Therapeutic Optimization using Behavioral Science  
Major Goal: Leveraging Electronic Health Record Tools to Reduce Health Disparities for Patients with Hypertension.

Grant (sub-award): National Institutes of Health (NIH) (# 122146)  
Admin Core for ROYBAL Center for Therapeutic Optimization using Behavioral Science  
Major Goal: To develop principle-driven interventions to enhance the evidence-based use of prescription medications.

Grant (sub-award): National Institute on Aging (NIA) (#122150-MOD001)  
Medication adherence  
Major Goal: Optimizing electronic health record prompts with behavioral economic to improve prescribing for older adults.

Grant (sub-award): National Cancer Institute (# 5 PO1 CA72099-01)  
Improving Cancer Risk Communication

Major Goal: To enhance informed decision-making and mammography for women by correcting misperceptions about breast cancer risk and the risks and benefits of mammography.

Grant (sub-award): National Cancer Institute (# 530464)  
Increasing Sun Screen Adolescent Behavior

Major Goal: To educate adolescents about solar protection and influence sun protection behaviors among parents, coaches and adolescents.

Grant: National Endowment for Financial Education (# 20137)  
Tailoring Retirement Savings Communication

Major Goal: To provide an implementation plan to enhance retirement savings among employees.

Grant: Social Security Administration (#19-F-10002-9-01)  
Marketing Financial Literacy

Major Goal: To create and market audience-friendly financial literacy products.

#### **INSTITUTION SERVICE**

Tuck Executive Committee, 1998, 1999, 2000, 2002

Tuck Research Committee, 2000

Area Chair, 2002 to 2006

Tuck Admission Committee, 2004

Tuck Executive Education Committee, 1999, 2000, 2006

Dartmouth Capital Fund Raising Committee, 2000

Dartmouth Provost Search Committee, 2001, 2018

Dartmouth, Director of Business Development, ISTS, 2002-2003

Dartmouth, Vice President of Equity and Diversity Search Committee, 2007-2008

Dartmouth, General Council Search Committee, 2017

Associate Dean for Innovation and Growth, 2015 – 2018

Deputy Dean, 2018 – 2020

Senior Associate Dean for Innovation and Growth, 2020 - present

#### **PROFESSIONAL ACTIVITIES**

Area Editor, Journal of Consumer Psychology, 2015 - 2017.

Area Editor, Journal of Consumer Research, 1999 - 2003.

Review Board, Journal of Marketing Research, 1999 to present.

Review Board, Journal of Public Policy and Marketing, 2008 to present.

Review Board, Social Marketing Quarterly, 2014 to present.

Review Board, Journal of Marketing, 2015 to present.

Review Board, Journal of Marketing Behavior, 2015 to 2019.

Review Board, Journal of Consumer Research, 1994 - 2014.

Review Board, Journal of Consumer Psychology, 2002 - 2007.

Review Board, Marketing Letters, 1990 - 2003.

Ad Hoc Reviewer, Marketing Science.  
Ad Hoc Reviewer, Journal of Experimental Psychology: Applied.  
Ad Hoc Reviewer, Psychology and Health.  
Ad Hoc Reviewer, American Psychologist.  
Reviewer, American Marketing Association Conference, 1984 - 1992, 1997.  
Reviewer, Association for Consumer Research Conference, 1983 - 2010.  
Reviewer, AMA Doctoral Dissertation Competition, 1988, 1990, 1996, 1997.  
Reviewer, MSI Doctoral Dissertation Competition, 1995 - 1998, 2001, 2003, 2005, 2007.  
Reviewer ACR/Sheth Dissertation Award 2006 - 2008  
Doctoral Consortium Faculty 1986, 1990, 1996, 2004, 2005, 2006, 2008, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019.  
Program Committee, Association for Consumer Research Conference, 1991, 1994, 1997, 2007.  
Member ACR/TCR Advisory Committee, 2005 - 2010.  
Co-Chairperson, Association for Consumer Research Conference, 2002.  
C-Chairperson, Transformative Consumer Research Conference, 2007.  
President-Elect, Association for Consumer Research, January 2007.  
Member, Board of Academic Trustees, Marketing Science Institute, 2006 - 2010.  
President, Association for Consumer Research, 2008.  
Health Communication Advisor, Center for Disease Control, 2009 - 2014.  
Co-Chairperson, Advertising and Consumer Psychology Conference, 2009.  
Co-Chairperson, Advisory Board Member, CDC Annual Health Marketing Conference, 2010.  
Fellow, Association for Consumer Research, 2018.

## Appendix B Documents Considered

### Documents Received from Counsel

Authentication Declaration of Michael Becker, , DAVID WILLIAMS and CAROLL ANGLADE, THOMAS MATTHEWS, MARTIZA ANGELES, and HOWARD CLARK, individually and on behalf of all others similarly situated v. Reckitt Benckiser LLC and RB Health (US) LLC, Case No. 1:20-cv-23564, United States District Court for the Southern District of Florida, August 13, 2021.

Brief of Amicus Curiae by Truth in Advertising, DAVID WILLIAMS and CAROLL ANGLADE, THOMAS MATTHEWS, MARTIZA ANGELES, and HOWARD CLARK, individually and on behalf of all others similarly situated v. Reckitt Benckiser LLC and RB Health (US) LLC, Case No. 1:20-cv-23564, July 26, 2021.

Declaration of Rachel Sexton, , DAVID WILLIAMS and CAROLL ANGLADE, THOMAS MATTHEWS, MARTIZA ANGELES, and HOWARD CLARK, individually and on behalf of all others similarly situated v. Reckitt Benckiser LLC and RB Health (US) LLC, Case No. 1:20-cv-23564, United States District Court for the Southern District of Florida, August 13, 2021.

Defendants Reckitt Benckiser LLC and RB Health (US) LLC's Motion to Dismiss Plaintiffs' Amended Class Action Complaint, DAVID WILLIAMS and CAROLL ANGLADE, individually and on behalf of all others similarly situated v. Reckitt Benckiser LLC and RB Health (US) LLC, Case No. 1:20-cv-23564, December 15, 2020.

Defendants Reckitt Benckiser LLC and RB Health (US) LLC's Motion to Dismiss the Complaint, DAVID WILLIAMS and CAROLL ANGLADE, individually and on behalf of all others similarly situated v. Reckitt Benckiser LLC and RB Health (US) LLC, Case No. 1:20-cv-23564, November 2, 2020.

Defendants' Motion to Strike Submissions of Frank and TINA, Exhibit A, Supplemental Declaration of Dr. Gary W. Small, Case No. 1:20-cv-23564, August 10, 2021.

Defendants' Motion to Strike Submissions of Frank and TINA, Exhibit B, Supplemental Declaration of Steven Weisbrot, Esq. of Angeion Group Regarding the Supplemental Notice Program, DAVID WILLIAMS, CAROLL ANGLADE, THOMAS MATTHEWS, MARTIZA ANGELES, and HOWARD CLARK, individually and on behalf of all others similarly situated v. Reckitt Benckiser LLC and RB Health (US) LLC, Case No. 1:20-cv-23564, August 9, 2021.

Defendants' Reckitt Benckiser LLC And RB Health (Us) LLC's Motion To Dismiss Plaintiffs' Amended Class Action Complaint, DAVID WILLIAMS and CAROLL ANGLADE, THOMAS MATTHEWS, MARTIZA ANGELES, and HOWARD CLARK, individually and on behalf of all others similarly situated v. Reckitt Benckiser LLC and RB Health (US) LLC, Case No. 1:20-cv-23564, United States District Court for the Southern District of Florida, December 15, 2020.

Defendants' Reckitt Benckiser LLC And RB Health (Us) LLC's Motion To Dismiss the Complaint, DAVID WILLIAMS and CAROLL ANGLADE, THOMAS MATTHEWS, MARTIZA ANGELES, and HOWARD CLARK, individually and on behalf of all others similarly situated v. Reckitt Benckiser LLC and RB Health (US) LLC, Case No. 1:20-cv-23564, United States District Court for the Southern District of Florida, November 2, 2020.

Defendants' Supplemental Briefing Regarding Injunctive Relief, Exhibit 1, Declaration of Dr. Gary W. Small, Case No. 1:20-cv-23564, May 24, 2021.

Objection of Theodore H. Frank, DAVID WILLIAMS and CAROLL ANGLADE, THOMAS MATTHEWS, MARTIZA ANGELES, and HOWARD CLARK, individually and on behalf of all others similarly situated v. Reckitt Benckiser LLC and RB Health (US) LLC, Case No. 1:20-cv-23564, July 26, 2021.

Paperless Order re [58] Order [Dkt No. 84], August 5, 2021.

Plaintiffs' Unopposed Motion for Preliminary Approval, Exhibit 3, Declaration of Steven Weisbrot of Angeion Group Regarding the Proposed Notice Program, DAVID WILLIAMS, CAROLL ANGLADE, THOMAS MATTHEWS, MARTIZA ANGELES, and HOWARD CLARK, individually and on behalf of all others similarly situated v. Reckitt Benckiser LLC and RB Health (US) LLC, Case No. 1:20-cv-23564, February 5, 2021.

Plaintiffs' Motion for Final Approval of Class Action Settlement and Class Counsel's Motion for Attorneys' Fees, Expenses, and Service Awards and Incorporated Memorandum of Law, DAVID WILLIAMS and CAROLL ANGLADE, THOMAS MATTHEWS, MARTIZA ANGELES, and HOWARD CLARK, individually and on behalf of all others similarly situated v. Reckitt Benckiser LLC and RB Health (US) LLC, Case No. 1:20-cv-23564, United States District Court for the Southern District of Florida, July 19, 2021.

Plaintiffs' Unopposed Motion for Preliminary Approval, Exhibit 1, Settlement Agreement and Release, DAVID WILLIAMS and CAROLL ANGLADE, THOMAS MATTHEWS, MARTIZA ANGELES, and HOWARD CLARK, individually and on behalf of all others similarly situated v. Reckitt Benckiser LLC and RB Health (US) LLC, Case No. 1:20-cv-23564, February 8, 2021.

Research conducted or assembled by the marketing professionals in connection with the marketing of the product.

"RB VMS Rapid Results 2019 Program, VMS Drivers of Efficacy, Topline Report," Hauser Associates, Inc., July 2019.

Angeion Group, Neuriva Facebook Banners.

Angeion Group, Neuriva Online Advertisement Banners.

Notice of Pendency and Proposed Settlement of Class Action

Rbsettlement Website, Frequently Asked Questions.

Rbsettlement Website, Home Page.

### Academic Papers and Books

Block, Lauren G. and Punam Anand Keller, "Beyond Protection Motivation: An Integrative Theory of Health Appeals," Journal of Applied Social Psychology, Vol. 28 (17), September 1998.

Block, Lauren G. and Punam Anand Keller, "Effects of Self-Efficacy and Vividness on the Persuasiveness of Health Communications," Journal of Consumer Psychology, Vol. 6 (1), 1997.

Block, Lauren G. and Punam Anand Keller, "When to Accentuate the Negative: The Effects of Perceived Efficacy and Message Framing on Intentions to Perform a Health-Related Behavior," Journal of Marketing Research, Vol. 32 (2), May 1995.

## Appendix B Documents Considered

- Boush, David M., Marian Friestad, and Gregory M. Rose, "Adolescent Skepticism toward TV Advertising and Knowledge of Advertiser Tactics," *Journal of Consumer Research*, Vol. 21, No. 1, 1994, pp. 165-175.
- Cole, Galen, E., et al., "CDC MessageWorks: Designing and Validating a Social Marketing Tool to Craft and Defend Effective Messages," *Social Marketing Quarterly*, Vol. 22 (1), March 2015.
- Cowan, Alexandra, et al., "Dietary Supplement Use Differs by Socioeconomic and Health-Related Characteristics among U.S. Adults, NHANES 2011-2014," *Nutrients*, Vol. 10, (8), August 2018, pp. 1-12.
- Crawford, Susan and Loretta Stucki, "Peer Review and the Changing Research Record," *Journal of the American Society for Information Science*, Vol. 41, (3), April 1990, pp. 223-228.
- Keller, Punam Anand and Donald R. Lehmann, "Designing Effective Health Communications: A Meta Analysis of Experimental Results," *Journal of Public Policy and Marketing*, 27 (2), Fall 2008.
- Keller, Punam Anand and Lauren G. Block, "Increasing the Persuasiveness of Fear Appeals: The Effect of Arousal and Elaboration," *Journal of Consumer Research*, Vol. 22 (4), March 1996.
- Keller, Punam Anand, "Converting the Unconverted: The Effect of Inclination and Opportunity to Discount Health-Related Fear Appeals," *Journal of Applied Psychology*, Vol. 84 (3), June 1999.
- Keller, Punam Anand, "Regulatory Focus and Efficacy of Health Messages," *Journal of Consumer Research*, Vol. 33 (1), June 2006.
- Keller, Punam Anand, et al., "Effectiveness of Corporate Well-Being Programs: A Meta-Analysis," *Journal of Macromarketing*, 29 (3), August 2009.
- Knetsch, Jack L., Fang-Fang Tang, and Richard H. Thaler, "The Endowment Effect and Repeated Market Trials: Is the Vickrey Auction Demand Revealing?" *Experimental Economics*, Vol. 4, 2001, pp. 257-269.
- Kotler, Philip and Kevin Keller, *Marketing Management*, 15th ed., Pearson, 2016.
- Masumoto, Kouhei, Mariko Shiozaki, and Nozomi Taishi, "The Impact of Age on Goal-Framing for Health Messages: The Mediating Effect of Interest in Health and Emotion Regulation," *PLoS ONE*, Vol. 15, No. 9, 2020, pp. 1-16.
- Moscardelli, Deborah and Catherine Liston-Hayes, "Consumer Socialization in a Wired World: The Effects of Internet Use and Parental Communication on the Development of Skepticism to Advertising," *Journal of Marketing Theory and Practice*, Vol. 13, No. 3, 2005, pp. 62-75.
- Obermiller, Carl and Eric R. Spangenberg, "Development of a Scale to Measure Consumer Skepticism Toward Advertising," *Journal of Consumer Psychology*, Vol. 7, No. 2, 1998, pp. 59-82.
- Petty, Richard E. and John T. Cacioppo, "The Elaboration Likelihood Model of Persuasion," *Advances in Experimental Social Psychology*, Vol. 19, 1986, pp. 123-205.
- Petty, Richard E., John T. Cacioppo, and David Schumann, "Central and Peripheral Routes to Advertising Effectiveness: The Moderating Role of Involvement," *Journal of Consumer Research*, Vol. 10, No. 2, 1983, pp. 135-146.
- Pham, Michel Tuan and E. Tory Higgins, "Promotion and Prevention in Consumer Decision-Making: The State of the Art and Theoretical Propositions," in *Inside Consumption*, 1st Edition, Routledge, 2005, pp. 8-43.
- Tan, Soo-Juan and Khai-Ling Tan, "Antecedents and Consequences of Skepticism toward Health Claims: An Empirical Investigation of Singaporean Consumers," *Journal of Marketing Communications*, Vol. 13, No. 1, 2007, pp. 59-82.
- Thakor, Mrugank V. and Karine Goneau-Lessard, "Development of a Scale to Measure Skepticism of Social Advertising Among Adolescents," *Journal of Business Research*, Vol. 62, No. 12, 2009, pp. 1342-1349.

### Public Documents

- "Best Sellers in Multivitamins," Amazon available at [https://www.amazon.com/Best-Sellers-Health-Personal-Care-Multivitamins/zgbs/hpc/3774861/ref=zg\\_bs\\_nav\\_hpc\\_3\\_6936790011](https://www.amazon.com/Best-Sellers-Health-Personal-Care-Multivitamins/zgbs/hpc/3774861/ref=zg_bs_nav_hpc_3_6936790011), accessed on August 13, 2021.
- "Best Sellers in Fish Oil Nutritional Supplements," Amazon, available at [https://www.amazon.com/gp/bestsellers/hpc/10728501/ref=sr\\_bs\\_3\\_10728501\\_1](https://www.amazon.com/gp/bestsellers/hpc/10728501/ref=sr_bs_3_10728501_1), accessed on August 13, 2021.
- "Best Sellers in Vitamin B12 Supplements," Amazon, available at [https://www.amazon.com/gp/bestsellers/hpc/3774741/ref=sr\\_bs\\_4\\_3774741\\_1](https://www.amazon.com/gp/bestsellers/hpc/3774741/ref=sr_bs_4_3774741_1), accessed on August 13, 2021.
- "Best Sellers in Vitamin C Supplements," Amazon, available at [https://www.amazon.com/gp/bestsellers/hpc/3774771/ref=sr\\_bs\\_4\\_3774771\\_1](https://www.amazon.com/gp/bestsellers/hpc/3774771/ref=sr_bs_4_3774771_1), accessed on August 13, 2021.
- "Evaluating 'superiority', 'equivalence' and 'non-inferiority' in clinical trials," *National Institute of Health*, July-August 2007, available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6074290/>, accessed on August 12, 2021.
- "Frequently Asked Questions," [rbsettlement.com](https://rbsettlement.com/frequently-asked-questions.php), available at <https://rbsettlement.com/frequently-asked-questions.php>, accessed August 12th, 2021.
- "How the Aging Brain Affects Thinking," *National Institute on Aging*, October 19, 2020, available at <https://www.nia.nih.gov/health/how-aging-brain-affects-thinking>, accessed on August 10, 2021.
- "Neuriva Nootropic Brain Support Supplement - Original Capsules (75 Count in a Bottle), Phosphatidylserine, Gluten Free, Decaffeinated, Supports Focus Memory Concentration Learning and Accuracy," Amazon, available at <https://www.amazon.com/Neuriva-Supplement-Original-Indicators-Performance/dp/B07Z6VFMM4>, accessed on August 13, 2021.

## Appendix B Documents Considered

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“Neuriva Nootropic Brain Support Supplement - Plus Capsules (30 count in a box) Phosphatidylserine, B6, B12 and Folic Acid, Supports Focus Memory Concentration Learning Accuracy and Reasoning,” Amazon, available at <https://www.amazon.com/Brain-Support-Supplement-Performance-Concentration/dp/B07PBZRDJN>, accessed on August 13, 2021.

“NEURIVA Original Capsules (30ct) Phosphatidylserine, Gluten Free, Decaffeinated - Supports Focus, Memory, Learning, Accuracy & Concentration (Pack of 1),” Amazon, available at <https://www.amazon.com/Brain-Support-Supplement-Performance-Concentration/dp/B07P6JL7TW>, accessed on August 13, 2021.

“Nootropic Brain Support Supplement - NEURIVA De-Stress Capsules (30 Count in a Bottle), for Everyday Stress Reduction, Relaxation, Focus, Accuracy & Concentration\*, L-Theanine, SOD, Coffee Cherry,” Amazon, available at <https://www.amazon.com/Nootropic-Brain-Support-Supplement-Stress/dp/B086CDPCNQ>, accessed on August 13, 2021.

“Points to Consider on Switching between Superiority and Non-Inferiority,” The European Agency for the Evaluation of Medical Products, July 27, 2000, available at [https://www.ema.europa.eu/en/documents/scientific-guideline/points-consider-switching-between-superiority-non-inferiority\\_en.pdf](https://www.ema.europa.eu/en/documents/scientific-guideline/points-consider-switching-between-superiority-non-inferiority_en.pdf), accessed on August 12, 2021.

“Prove,” Collins, available at <https://www.collinsdictionary.com/us/dictionary/english/prove>, accessed on August 10, 2021.

“Superiority trials, non-inferiority trials, and prisoners of the 2-sided null hypothesis,” *BMJ Journals*, available at <https://ebm.bmj.com/content/9/2/38>, accessed on August 12, 2021.

“Test,” Collins, available at <https://www.collinsdictionary.com/dictionary/english/test>, accessed on August 10, 2021.

Xiaomei Liu, Michael M Shuster, Joseph A Mikels, Elizabeth A L Stine-Morrow, “Doing What Makes You Happy,” June 12, 2009, available at <https://pubmed.ncbi.nlm.nih.gov/31188722/>, accessed on August 12, 2021.

CONFIDENTIAL

## **Appendix C**

### **Online Media Postings**

# Williams, et al. v. Reckitt Benckiser LLC, et al.

Docket No.: 1:20-cv-23564

UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF FLORIDA MIAMI  
DIVISION

MENU

SUBMIT A CLAIM

**If you are a person(s) who purchased for personal consumption and not for resale, one or more of the Neuriva<sup>®</sup> Products, from Reckitt or an authorized reseller, in the United States, between the dates of January 1, 2019 and April 23, 2021, the date of Preliminary Approval of the Settlement by the Court, then you may be entitled to a Settlement Benefit**

## Important Dates

**July 27, 2021** — Deadline to submit an Objection.

**July 27, 2021** — Deadline to submit a request for Exclusion.

**August 17, 2021 at 10:30 am** — Fairness Hearing.

**October 1, 2021, Estimated** — Deadline to submit a Claim Form, which is 45 days after the Court issues Final Approval of the Settlement. Because the Court may move the Final Hearing date and we do not know exactly when the Court will issue the Final Approval Order, this date is estimated and will be updated when the Final Approval Order is entered.

Plaintiffs have brought this Action against Reckitt Benckiser LLC and RB Health (US) LLC (“Reckitt” or “Defendants”), on behalf of themselves and all other persons who, from January 1, 2019 up to and including April 23, 2021 (the “Class Period”), purchased in the United States for consumption and not resale bottles of Neuriva<sup>®</sup> Products, including all variations and sizes of Neuriva Original, Neuriva Plus, and Neuriva De-Stress.

Plaintiffs alleged that Defendants advertised that Neuriva<sup>®</sup> Products are clinically and scientifically “proven” and such representations are false and misleading. Plaintiffs maintain that Defendants actions constitute violations of various states’ consumer protection laws, as well as other laws.

Reckitt denies Plaintiffs’ claims and charges, denies that it has violated any laws, and maintains that the labeling, packaging, and marketing of Neuriva<sup>®</sup> Products have always been truthful and not deceptive.

In addition to this Action, this settlement also resolves all Neuriva Actions (as defined in the Settlement Agreement) that have been or could have been filed on the same basis as the Action, including *Matthews v. Reckitt Benckiser LLC, et al.*, Case No. 1:20-cv-00854 (E.D. Cal.); *Angeles v. Reckitt Benckiser LLC, et al.*, Case No. 1:20-cv-07138 (S.D.N.Y); and *Clark v. Reckitt Benckiser LLC, et al.* (unfiled).

To receive a Settlement Benefit, you must file a valid and timely claim. A Claim Form may be filed online by clicking [here](#) and is also available for download on the [Important Documents](#) page of this website. Claim Forms must be submitted or postmarked within 45 days of the Court issuing the Final Approval Order. This date is currently estimated to be October 1, 2021. If you don't want to be legally bound by the Settlement, you must exclude yourself by **July 27, 2021**, or you won't be able to sue Defendants about the legal claims in the action ever again. If you exclude yourself, you cannot receive a Settlement Benefit from this Settlement. If you stay in the Settlement, you may object to it by **July 27, 2021**. The detailed notice, available by clicking [here](#), explains how to request exclusion or how to object. The Court will hold a hearing on **August 17, 2021** to consider whether to approve the Settlement, subject to the additional conditions explained in the [Notice](#).

Your legal rights are affected whether you act or don't act. Read the [Notice](#) carefully.

## YOUR LEGAL RIGHTS AND OPTIONS IN THIS SETTLEMENT

**YOUR LEGAL RIGHTS AND OPTIONS IN THIS SETTLEMENT**

<b>SUBMIT A CLAIM FORM</b>	<p>If you want to receive a Settlement Benefit, you must submit a Claim Form.</p> <p>Click <a href="#">Here</a> to submit a Claim Form online.</p> <p>Click <a href="#">Here</a> to download a Claim Form to submit it by email or mail.</p>	Deadline: <b>October 1, 2021</b> <b>(Estimated)</b>
<b>EXCLUDE YOURSELF</b>	<p>If you exclude yourself from the Settlement, you will not be part of the Settlement nor will you receive a Settlement Benefit. Excluding yourself is the only option that allows you to bring or maintain your own lawsuit against Defendants regarding the allegations in the Action ever again.</p> <p>Click <a href="#">Here</a> for more information on excluding yourself.</p>	Deadline: <b>July 27, 2021</b>

## YOUR LEGAL RIGHTS AND OPTIONS IN THIS SETTLEMENT

<p style="text-align: center;"><b>OBJECT</b></p>	<p>You may write to the Court about why you object to (i.e., don't like) the Settlement and think it shouldn't be approved. Submitting an objection does not exclude you from the Settlement.</p> <p>Click <a href="#">Here</a> for more information on objecting to the Settlement.</p>	<p>Deadline: <b>July 27, 2021</b></p>
<p style="text-align: center;"><b>GO TO THE "FAIRNESS HEARING"</b></p>	<p>The Court will hold a "Final Approval Hearing" to consider the Settlement, the request for attorneys' fees and costs of the lawyers who brought the Action, and the Named Plaintiffs' request for service awards for bringing the Action.</p> <p>You may, but are not required to, speak at the Final Approval Hearing. If you intend to speak at the Final Approval Hearing, you must also submit a "Notice of Intention to Appear" indicating your intent to do so.</p> <p>Final Fairness Hearing for 8/17/2021 at 10:30 AM in the Miami Division before Magistrate Judge Jonathan Goodman has been scheduled to take place via ZOOM.</p> <p>All parties who wish to attend will need to download the Zoom App for cell phone, tablet (iPad), and for those using</p>	<p>Hearing Date and Time: <b>August 17, 2021 at 10:30 am</b></p>

<b>YOUR LEGAL RIGHTS AND OPTIONS IN THIS SETTLEMENT</b>		
	<p>a desktop or a laptop equipped with a webcam to click on the meeting link and install the plug-in when prompted. Then enter the Meeting ID and Password. Each participant needs to log in 10 minutes early, to make sure there are no glitches. The hearing will be conducted via ZOOM, as follows:</p> <p>Join ZoomGov Meeting  <a href="https://www.zoomgov.com/j/1613756943?pwd=UFIWSEILQmVOK0hzb05QZE1mdWFDdz09">https://www.zoomgov.com/j/1613756943?pwd=UFIWSEILQmVOK0hzb05QZE1mdWFDdz09</a>. Meeting ID: 161 375 6943.</p> <p>Passcode: 819324.</p> <p>Click <a href="#">Here</a> for more information on speaking at the Hearing.</p>	
<b>DO NOTHING</b>	<p>If you do nothing, you will remain part of the Settlement but will not receive a Settlement Benefit.</p> <p>You will also give up your right to object to the Settlement and you will be not be able to be part of any other lawsuit about the legal claims in this case.</p>	N/A

These rights and options—**and the deadlines to exercise them**—are explained in more detail in the [Notice](#).

The Court in charge of this Action has preliminarily approved the Settlement and must decide whether to give final approval to the Settlement. The relief provided to Class Members will be provided only if the Court gives final approval to the Settlement and, if there are any appeals, after the appeals are resolved in favor of the Settlement. **Please be patient.**

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# Williams, et al. v. Reckitt Benckiser LLC, et al.

Docket No.: 1:20-cv-23564

UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF FLORIDA MIAMI  
DIVISION

[MENU](#)

[SUBMIT A CLAIM](#)

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## Frequently Asked Questions

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### BASIC INFORMATION

1. [Why did the Court issue the Notice?](#)
2. [What is the lawsuit about?](#)
3. [How do I know if I am part of the Settlement Class?](#)
4. [Why is this a class action?](#)
5. [Why is there a Settlement?](#)

## WHO IS IN THE SETTLEMENT?

To see if you are affected or if you can get money or benefits, you first have to determine whether you are a member of the Class.

6. How do I know if I am part of the Settlement?
7. I'm still not sure if I'm included in the Settlement.

## THE SETTLEMENT BENEFITS—WHAT YOU GET AND HOW TO GET IT

8. What does the Settlement provide?

**BENEFITS.** If the Proposed Settlement is ultimately approved by the Court, it will provide cash payments and other relief to the Settlement Class. In return for the relief described below, the Settlement Class Members release their rights to pursue any claims against Defendants and related entities concerning or relating to the allegations raised in this Action. The central provisions of the Settlement are as follows:

### **a. Injunctive Relief**

Reckitt shall change all Neuriva Product label and marketing references as follows:

- a. Any references to "Clinically Proven" on the Neuriva Product labels shall be changed to "Clinically Tested" or similar language, such as clinical studies have "shown;"
- b. Any references to "Clinically Proven" in ancillary marketing (including websites, advertising, and social media) shall be changed to "Clinically Tested" or similar language, such as clinical studies have "shown;"

- c. Any references to "Science Proved" on the Product labels or in ancillary marketing (including websites, advertising, and social media) shall be changed to "Science Tested" or similar language, such as scientific studies have "shown."
- d. Such injunctive relief will last for no longer than two (2) years.

### **b. Monetary Relief**

Reckitt shall pay or cause to be paid certain monetary relief to each Class Member who submits a Valid Claim for purchase(s) of Neuriva Product based upon the following two-tier, capped claims-made settlement structure:

- a. Class Members who provide Proof(s) of Purchase may be entitled to recover thirty-two dollars and fifty cents (\$32.50) per Valid Claim and may make up to two (2) Claims for a maximum of sixty-five dollars (\$65.00). Notwithstanding the preceding, in no circumstance shall Reckitt pay an amount that exceeds the actual purchase amount reflected in a Settlement Class Member's Proof of Purchase.
- b. Class Members who do not provide Proof of Purchase may be entitled to recover five dollars (\$5.00) per Claim and may make up to four (4) Claims for a maximum of twenty dollars (\$20.00).
- c. Valid Claims shall be paid by Reckitt pursuant to a total maximum, or cap, of eight million dollars (\$8,000,000.00).
- d. Valid Claims shall be limited to one Settlement Class Member per Household.

NOTICE AND ADMINISTRATION. In addition to the above relief, Defendants will also pay for the costs of Notice and to administer the Settlement.

CLAIM PROCEDURE. To receive a cash payment, Settlement Class Members must complete.

9. What am I giving up in exchange for the Settlement benefits?

## **EXCLUDING YOURSELF FROM THE SETTLEMENT**

If you wanted to keep the right to sue or continue to sue Defendants over the legal issues in the lawsuit, then you must have taken steps to remove yourself from this Settlement. This is called asking to be excluded from the Class, also referred to as "opting-out" of the Class.

10. If I excluded myself, can I get anything from this Settlement?

11. If I don't exclude myself, can I sue later?

12. How do I get out of the Settlement?

## **THE LAWYERS REPRESENTING YOU**

13. Do I have a lawyer in the case?

14. How will the lawyers be paid?

## **OBJECTING TO THE SETTLEMENT**

You have the option of telling the Court you don't agree with the Settlement or some part of it.

15. How can I tell the Court that I don't like the Settlement?

16. What's the difference between objecting and excluding?

## THE COURT'S FAIRNESS HEARING

The Court will hold a hearing on August 17, 2021 to decide whether to grant final approval to the Settlement and consider all of the filed objections. If the Court accepts the Settlement it will issue a Final Order approving the Settlement Agreement.

17. When and where will the Court decide whether to grant final approval of the Settlement?

18. Do I have to come to the hearing?

19. May I speak at the hearing?

## GETTING MORE INFORMATION

20. How do I get more information?

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